

PATENT
104322.147US5



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Thomas CHITTENDEN *et al.*.

Serial No.: TO BE ASSIGNED

Group Art Unit: TO BE ASSIGNED

Filed: 10 April 2001

Examiner: TO BE ASSIGNED

For: NOVEL PEPTIDES AND COMPOSITIONS WHICH MODULATE APOPTOSIS

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

**SUBMISSION OF PAPER COPY OF SEQUENCE LISTING AND
REQUEST FOR USE OF COMPUTER READABLE
FORM FROM PARENT APPLICATION**

Applicants declare that the computer readable form in the application filed concurrently herewith is identical to the second computer readable form filed on 20 September 2000 in parent application Serial No. 09/236,385, filed 25 January 1999 (hereinafter "the '385 application").

Therefore, applicants request, in accordance with 37 C.F.R. § 1.821(e), that the second-filed computer readable form filed in the '385 application be used as the computer readable form for the instant application. It is understood that the Patent and Trademark Office will make the necessary changes in application number and filing date for the computer readable form that will be used for the instant application. A paper copy of the Sequence Listing is concurrently herewith. Applicant submit that the information recorded in the computer readable form filed on 20 September 2000 in the '385 application is identical to the paper copy of the sequence listing

09/828870-04/10/01

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filed herewith. Accordingly, no new matter is added by the Sequence Listing.

Respectfully submitted,

HALE AND DORR, L.L.P.

By:

Henry N. Wixon
Reg No. 32,073

Date: 10 April 2001

Hale and Dorr, L.L.P.
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09933370-041001

SEQUENCE LISTING

(1) GENERAL INFORMATION:

- (i) APPLICANTS: CHITTENDEN, Thomas D.; and
LUTZ, Robert J.
- (ii) TITLE OF INVENTION: NOVEL PEPTIDES AND COMPOSITIONS WHICH
MODULATE APOPTOSIS
- (iii) NUMBER OF SEQUENCES: 41
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: Hale and Dorr
 - (B) STREET: 1455 Pennsylvania Avenue, N.W.
 - (C) CITY: Washington
 - (D) STATE: D.C.
 - (F) ZIP: 20004
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Floppy disk
 - (B) COMPUTER: IBM PC compatible
 - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 - (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: 09/236,385
 - (B) FILING DATE: 25-JANUARY-1999
 - (C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION:
 - (A) NAME: WIXON, HENRY N.
 - (B) REGISTRATION NUMBER: 32,073
 - (C) ATTORNEY DOCKET NO. 104322.147CIP
- (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: 202-942-8400
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(2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 13 amino acid
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Gly Asp Asp Ile Asn Arg Arg Tyr Asp Ser Glu Phe Gln
5 10

(2) INFORMATION FOR SEQ ID NO:2:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 28 amino acid
 - (B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Pro Ser Ser Thr Met Gly Gln Val Gly Arg Gln Leu Ala Ile Ile Gly
5 10 15
Asp Asp Ile Asn Arg Arg Tyr Asp Ser Glu Phe Gln
20 25

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 31 amino acid

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Gln Val Gly Arg Gln Leu Ala Ile Ile Gly Asp Asp Ile Asn Arg Arg
5 10 15
Tyr Asp Ser Glu Phe Gln Thr Met Leu Gln His Leu Gln Pro Thr
20 25 30

(2) INFORMATION FOR SEQ ID NO:4:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acid

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Leu Ser Glu Cys Leu Lys Arg Ile Gly Asp Glu Leu Asp Ser Asn
5 10 15

(2) INFORMATION FOR SEQ ID NO:5:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Leu Lys Arg Ile Gly Asp Glu Leu Asp
5

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(2) INFORMATION FOR SEQ ID NO:6:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Gln Asp Ala Ser Thr Lys Lys Leu Ser Glu Cys Leu Lys Arg Ile Gly
 5 10 15
Asp Glu Leu Asp Ser Asn Met Glu Leu Gln
 20 25

(2) INFORMATION FOR SEQ ID NO:7:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Leu Ala Leu Arg Leu Ala Cys Ile Gly Asp Glu Met Asp Val Ser
 5 10 15

(2) INFORMATION FOR SEQ ID NO:8:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Ile Gly Asp Glu Met
 5

(2) INFORMATION FOR SEQ ID NO:9:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Cys Met Glu Gly Ser Asp Ala Leu Ala Leu Asp Leu Ala Cys Ile Gly
 5 10 15

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Asp Glu Met Asp Val Ser Leu Arg Ala Pro Arg Leu
 20 25

(2) INFORMATION FOR SEQ ID NO:10:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 amino acids
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Val Gly Arg Gln Leu Ala Ile Ile Gly Asp Asp Ile Asn Arg Arg
 5 10 15

(2) INFORMATION FOR SEQ ID NO:11:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 14 amino acids
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Ala Ala Pro Ala Asp Pro Glu Met Val Thr Leu Pro Leu Val
 5 10

(2) INFORMATION FOR SEQ ID NO:12:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 36 amino acids
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

Leu Glu Cys Met Glu Gly Ser Asp Ala Leu Ala Leu Arg Leu Ala Cys
 5 10 15

Ile Gly Asp Glu Met Asp Val Ser Leu Arg Ala Pro Arg Leu Ala Gln
 20 25 30

Leu Ser Glu Val
 35

(2) INFORMATION FOR SEQ ID NO:13:

- (i) SEQUENCE CHARACTERISTICS:

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[illegible]

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

Ala Val

(ii) MOLECULE TYPE: peptide

Leu Gln His Leu
35

(ii) MOLECULE TYPE: DNA (genomic)

TTCCAGACCA TGTTCAGCA CCTGCAGCCC ACG
93

(2) INFORMATION FOR SEQ ID NO:16:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

Gln Val Gly Arg Gln Leu Ala Ile Ile Gly Asp Asp Ile Asn Arg Arg
 5 10 15
Tyr Asp Ser Glu Phe Gln Thr Met Leu Gln His Leu Gln Pro Thr
 20 25 30

(2) INFORMATION FOR SEQ ID NO:17:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 84 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

CCTAGCAGCA CCATGGGGCA GGTGGGACGG CAGCTCGCCA TCATCGGGGA CGACATCAAC
60
CGACGCT ATGACTCAGA GTTCCAG
84

(2) INFORMATION FOR SEQ ID NO:18:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

Pro Ser Ser Thr Met Gly Gln Val Gly Arg Gln Leu Ala Ile Ile Gly
 5 10 15
Asp Asp Ile Asn Arg Arg Tyr Asp Ser Glu Phe Gln
 20 25

(2) INFORMATION FOR SEQ ID NO:19:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 45 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

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(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

CAGGATGCGT CCACCAAGAA GCTGAGCGAG TGTCTCAAGC GCATCGGGGA CGAACTGGAC
60

AGTAACATGG AGCTGCAG
78

(2) INFORMATION FOR SEQ ID NO:24:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

Gln Asp Ala Ser Thr Lys Lys Leu Ser Glu Cys Leu Lys Arg Ile Gly
5 10 15

Asp Glu Leu Asp Ser Asn Met Glu Leu Gln
20 25

(2) INFORMATION FOR SEQ ID NO:25:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 45 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

CTGAGCGAGT GTCTCAAGCG CATCGGGGAC GAACTGGACA GTAAC
45

(2) INFORMATION FOR SEQ ID NO:26:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

Leu Ser Glu Cys Leu Lys Arg Ile Gly Asp Glu Leu Asp Ser Asn
5 10 15

(2) INFORMATION FOR SEQ ID NO:27:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 27 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

CTCAAGCGCA TCGGGGACGA ACTGGAC
27

(2) INFORMATION FOR SEQ ID NO:28:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 9 amino acids
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

Leu Lys Arg Ile Gly Asp Glu Leu Asp
5

(2) INFORMATION FOR SEQ ID NO:29:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 84 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:

TGCATGGAGG GCAGTGACGC ATTGGCCCTG CGGCTGGCCT GCATCGGGGA CGAGATGGAC
60

GTGAGCCTGA GGGCCCCGCG CCTG
84

(2) INFORMATION FOR SEQ ID NO:30:

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- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 28 amino acids
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:

Cys Met Glu Gly Ser Asp Ala Leu Ala Leu Arg Leu Ala Cys Ile Gly
 5 10 15
 Asp Glu Met Asp Val Ser Leu Arg Ala Pro Arg Leu
 20 25

(2) INFORMATION FOR SEQ ID NO:31:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 45 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:

TTGGCCCTGC GGCTGGCCTG CATCGGGGAC GAGATGGACG TGAGC
 45

(2) INFORMATION FOR SEQ ID NO:32:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 amino acids
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:

Leu Ala Leu Arg Leu Ala Cys Ile Gly Asp Glu Met Asp Val Ser
 5 10 15

(2) INFORMATION FOR SEQ ID NO:33:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:

ATCGGGGACG AGATG
 15

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[illegible]

(A) LENGTH: 5 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:34:

(2) INFORMATION FOR SEQ ID NO:35:

(A) LENGTH: 19 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:

Arg Arg Tyr

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 amino acids
 (B) TYPE: amino acid
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:36

Asn Arg Arg Tyr
20

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:37

Gln Val Gly Arg Gln Leu Ala Ile Ile Gly Asp Asp Ile Asn Arg
5 10 15

(2) INFORMATION FOR SEQ ID NO:38

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:38

Gln Val Gly Arg Gln Ala Ala Ile Ile Gly Asp Asp Ile Asn Arg
5 10 15

(2) INFORMATION FOR SEQ ID NO:39

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:39

Ala Ala Asp Pro Leu His Glu Ala Met Arg Ala Ala Gly Asp Glu Phe
5 10 15

Glu Thr Arg Phe
20

(2) INFORMATION FOR SEQ ID NO:40

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:40

Ser Thr Lys Lys Leu Ser Glu Cys Leu Lys Arg Ile Gly Asp Glu Leu
5 10 15

Asp Ser Asn His
20

(2) INFORMATION FOR SEQ ID NO:41

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 amino acids

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(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:41

Gly	Ser	Asp	Ala	Leu	Ala	Leu	Arg	Leu	Ala	Cys	Ile	Gly	Asp	Glu	Met
				5				10						15	
Asp	Val	Ser	Leu												
			20												

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